

# Work Order ID 59348

Wednesday, June 02, 2010 9:19:14 AM



ASAP

Page 1

Item ID: D212-580-041

Accept



Setup Start



Revision ID:

Item Name: Cargo Mirror Assembly

Stop



Start Date: 6/2/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 6/3/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: MVF

Date: 10-6-2 Tooling:

Date:

Run Start



QC:

Date: SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

Draw Nbr

Revision Nbr

D2161

Rev B2

100

0.00



DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile and create labels as per PPP D212-580-041 CHG003

*5/10/06/04*

*HJ for CL 10/06/04*

110

0.00



Large Fab

Large Fab

Memo

0.00

Large Fab

1-Assemble on Jig DT8065 as per Dwg D2161 2-Weld as per Dwg D2161 Identify as D2161-212 A/R SS ROD Batch: 1102421

*EL 10-6-2 (X1)*

120

0.00



QC5- Inspect part completeness to step on W/O

QC

Memo

0.00

Quality Control

*8/10/06/02*

*EL*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 59348**

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Item ID: D212-580-041

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Setup Start

Revision ID:

Stop

Item Name: Cargo Mirror Assembly

Start Date: 6/2/2010 Start Qty: 1.00

Cust Item ID:

Required Date: 6/3/2010 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130

QC9- Inspect visual per QSI004- Fusion Welds

0.00



QC

Memo

0.00

Quality Control

① PD 10.06.02

140

Black Sandtex(Ref:4.3.5.7) per QSI005 4.3

0.00



Powdercoat

Memo

0.00

Powder Coating

START TIME:

3:45pm FINISH TIME:

OVEN TEMPERATURE:

320°F

⇒ JH 10/06/02

1 9/

150

QC3- Inspect Part Finish

0.00



QC

Memo

0.00

Quality Control

10 06 03

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 59348

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Item ID: D212-580-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Cargo Mirror Assembly

Start Date: 6/2/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 6/3/2010 Req'd Qty: 1.00

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 	Pick Kit	0.00							
Packaging Packaging	Memo	0.00	7 m.t 10/06/03			(IX)			
170 	QC4- 100% Inspect kits for completeness	0.00							
QC Quality Control	Memo	0.00	Sidelog			(X)			
180 	Packaging	0.00							
Packaging Packaging	Memo	0.00	Identify and pack for shipping as per PPP D212-580-041						
	Location: _____		□ PPP Rev: _____						
			6/10/6/4 (1)						

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

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Wednesday, June 02, 2010 9:19:15 AM

Item ID: D212-580-041

Accept



Setup Start



Revision ID:

Stop



Item Name: Cargo Mirror Assembly

Start Date: 6/2/2010 Start Qty: 1.00



Cust Item ID:

Required Date: 6/3/2010 Req'd Qty: 1.00



Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

190

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/06/04  
MF

10-6-4.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

Wednesday, June 02, 2010 9:19:14 AM

Page 1  
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Work Order ID: 59348



Parent Item: D212-580-041



Parent Item Name: Cargo Mirror Assembly

Start Date: 6/2/2010

Required Date: 6/3/2010

Comments: IPP Rev:H Removed D2013-3/-4 06-03-22 JLM

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

CCR264SS3-2

Purchased

No

170

Each

228.0000

4

14



Rivet, Cherry

Location

Loc Qty

Loc Code

ST311

228

106578

45

108738 ✓

83

112314

100

D2011-103

Manufactured

No

170

Each

57.0000

2

2



8" Mirror

Location

Loc Qty

Loc Code

ST226

57

52198

7

58399 ✓

50

D2013-3

Manufactured

No

110

Each

5.0000

1

1



Mirror Bracket LH, 212

Location

Loc Qty

Loc Code

WA

5

58370

5

D2013-4

Manufactured

No

110

Each

5.0000

1

1



Mirror Bracket RH, 212

Location

Loc Qty

Loc Code

WA

5

58371

5

4x m-l 10/06/03

2x m-l 10/06/03  
R 10-6-2

R 10-6-2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

Wednesday, June 02, 2010 9:19:14 AM

Work Order ID: 59348



Parent Item: D212-580-041



Parent Item Name: Cargo Mirror Assembly

Start Date: 6/2/2010

Required Date: 6/3/2010

Comments: IPP Rev:H Removed D2013-3/-4 06-03-22 JLM

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2037-101		Manufactured	No			170	Each	9.0000	1	1			
Arm													

Location

Loc Qty

Loc Code

WA

9

52272

9

MS21059L3

Purchased

No

170

Each

154.0000

2

2



Nut Plate

Location

Loc Qty

Loc Code

ST301

100

114718

100

ST302

54

113749

10

114456 ✓

44

MS27039-1-08

Purchased

No

100

Each

1,501.000

4

4



Screw

Location

Loc Qty

Loc Code

ST291

1501

110552

44

110835 ✓

1257

114718

200

4x m-l 10/06/03

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

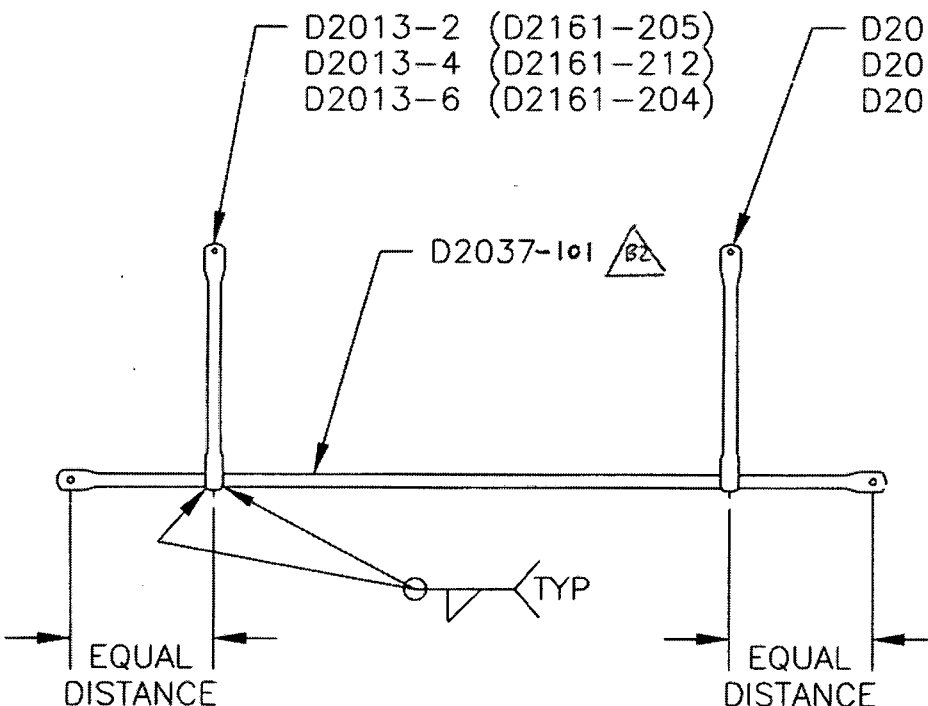
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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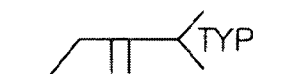
**NOTE:** Date & initial all entries

#59348

**DART**



PLACE SHORTER ARM  
ON SIDE OF JIG DT8065  
LABELED FWD (TYP)



D2037-101   
D2037 WELD FLAT  
END PARALLEL TO  
THE SHORT ARM

DETAIL OF D2161-204  
DETAIL OF D2161-205  
DETAIL OF D2161-212

NOTE: WELD ASSEMBLY  
USING JIG DT8065

FINISH: ~~POWDER COAT ASSEMBLY BLACK~~  
~~CRINKLE (4.3.5.3) PER DART QSI 005 4.3~~  
POWDER COAT BLACK SANDTEX (4.3.5.7) PER  
DART QSI 005 4.3

DESIGN	JB	DRAWN BY	RH	DART AEROSPACE LTD
CHECKED	KE	APPROVED	KE	HAWKESBURY, ONTARIO, CANADA
DATE	99.06.07			REV. B
	A	93.04.29		SHEET 1 OF 1
	B	99.06.07		SCALE
	B1	02.03.25		NTS
	B2	02.06.14		
		CHANGE FINISH		
		D2037-101 W		

**RELEASED**  
KE 99.06.10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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## 4.0 WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
<b>D204-562-041</b>	5.0 lb	0 in	0 lb-in	3.80 in	19.0 in-lb
Dual Mirror Installation	2.3 kg	0 m	0 kg-m	0.10 m	0.23 m-kg
<b>D205-563-041</b>	5.0 lb	0 in	0 lb-in	3.80 in	19.0 in-lb
Dual Mirror Installation	2.3 kg	0 m	0 kg-m	0.10 m	0.23 m-kg
<b>D212-580-041</b>	5.0 lb	0 in	0 lb-in	-5.25 in	-26.3 in-lb
Dual Mirror Installation	2.3 kg	0 m	0 kg-m	-0.13 m	-0.30 m-kg

## 5.0 PARTS LIST

Qty 562 -041	Qty 563 -041	Qty 580 -041	Part Number	Description
X			D204-562-041	DUAL MIRROR INSTALLATION
	X		D205-563-041	DUAL MIRROR INSTALLATION
		X	D212-580-041	DUAL MIRROR INSTALLATION
2	2	2	D2011-103	MIRROR
1			D2161-204	MIRROR BRACKET
	1		D2161-205	MIRROR BRACKET
		1	D2161-212	MIRROR BRACKET
*2	*2	*2	D3015-3	LOCKNUT
*2	*2	*2	AN960JD516	WASHER
		4	CCR264SS-3-2	RIVET, BLIND
		2	MS21059L3	NUTPLATE
4	4	4	MS27039-1-08	SCREW

\* PARTS ARE INCLUDED WITH D2011-103 MIRROR

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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